August 2003

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Maturing a Late North Alabama Crop

Most of northern Alabama's cotton crop is about two weeks behind normal due to delayed planting and poor growing conditions in May and early June. There is also much more replanted cotton than normal. The good news is that rainfall has continued into August and most fields have good square retention. The questions are: How many of these late squares can we mature and how many are just worm bait?

Recently, bollworms have entered cotton fields and control measures have been needed in many non-Bt fields. In many years we have been able to quit insect application in early August, but this year we will need to scout most fields much longer. In north Alabama, a good rule of thumb is that we can generally count on maturing a boll that flowers on August 20. Going backward, that means a bloom on August 20 was a square on about August 1. Therefore, any new squares being put on now will be hard to get into a picker basket.

However, this also points out we cannot forget the replanted cotton in many areas. This cotton has just been blooming for about a week and we must protect the squares that are on the plant now. If rainfall continues we should monitor insects closely perhaps into early September on this cotton. In particular we are seeing spider mites increasing rapidly in many fields. These pests can quickly defoliate cotton and should not be take lightly.

We had a few late-planted non-Bt cotton fields that I monitored last year. These fields started blooming the last week of July and three to four late insecticide treatments were needed. One field in particular got some timely late rains and produced two bales per acre. We can still produce a good crop on similar fields this year, but they will require close monitoring. DD60 information is posted at: www.aces.edu/department/cotton/sumgrwdgree.html.

So what does this mean for our crop in south Alabama?

Most of the scenarios for north Alabama also fit our crop in the southern counties. Much of the crop is around two weeks behind and began to bloom in mid-July. Most of the early planted cotton that I have visited looks better than later plantings. Fruit set is generally very high but we are seeing stinkbugs and budworms and bollworms in many
fields. We have been concerned that a very dry August would result in heavy fruit loss but the month appears to be off to a good start where moisture is concerned.

While northern counties generally use August 20 as a cutoff bloom date for maturing bolls in the fall, central and southern counties have a longer season. For central Alabama, the last week of August is a reasonable rule-of-thumb and for southern Alabama it ranges from September 1 through September 10. This will depend on how warm it is this fall and how far south you farm. You can also back these dates up approximately 3 weeks to determine when the pinhead squares that you find will be blooming. To get a ballpark time period on when bolls on a certain node will be ready to harvest, add 45 to 55 days from the time when that flower blooms early in the season. This is highly dependent on how warm it is. Cooler temperatures will result in a longer time period required and you can likely add 55 to 65 days to a bloom late in the season.

As Charles Burmester mentioned for northern cotton, the period for protecting this young cotton from worms and stinkbugs will likely run later this season. Don’t become complacent about the crop and let insects take the profits. We still have a good chance in many areas to make a reasonable crop.

*Cotton Insects in August. R. Smith

The insects of greatest concern for the remainder of the season will depend on whether a field is planted to conventional or Bollgard varieties. In Bollgard fields, the boll damaging bug complex offers the most potential damage. This would include brown and green stink bugs, clouded and tarnished plant bugs and the leaf footed bug (in southern counties). The most effective way to sample for this bug complex is to look for internal injury to bolls that are about the size of a quarter in diameter. In addition, one can always observe in terminals and open white blooms for plant bugs. Stink bugs do their damage hidden behind the bracts of bolls. For control of the bug complex consult with the cotton IPM guide available in all Extension offices.

Fields planted to conventional varieties may incur damage from both bug pests and worms. Bollworm pressure the last few days of July has been the heaviest in several years in some central and south Alabama fields. As we move through August, the tobacco budworm will likely also come back into the picture. If damaging numbers of bollworms and budworms occur, it will be difficult to select the best chemistry for controls. The most effective late season worm controls can be obtained with a mixture of pyrethroids and newer chemistry. Other caterpillars that may show up before cotton matures are fall, beet and southern armyworms and the looper complex.

*Cotton Harvest Aids and Football. M. Patterson

Well, two things start in about a month. High school and college football season starts and cotton defoliation is also about to begin. I don’t know what will happen in football and the state is full of experts on that subject, so my comments will be restricted to cotton defoliation.

We have never had so many materials and options available for use in the harvest aid business.
When I started working with harvest aids about 20 years ago, there were only a few materials used as cotton harvest aids. Prep, Def/Folex, Dropp, and Harvade were the four products used for defoliation and/or boll opening. These products were applied either alone or in combination when the crop was 60 to 70 percent open. Sodium chlorate and paraquat were used for desiccation if needed after defoliation. Life was simple.

Now we have Prep, Boll’D, SuperBoll, Ethephon, Aim, CottonQuik, Def, Folex, Dropp, Finish, Ginstar, Harvade, LeafLess, Roundup, Gramoxone, Boa, Accelerate, and ET (not Extraterrestrial). If I have missed someone’s product please let me know and it will be included in the next Picksack issue. The combination possibilities are endless. New methods of determining when to apply harvest aids include nodes above cracked boll (NACB) and DD 60’s. Regardless of what combination of products you ultimately choose there are some general rules that will determine the effectiveness of the treatment as much or more so that the choice of materials.

First, cotton that is not ready to be defoliated will be harder to defoliate regardless of the material used. Premature defoliation can also cost you some yield and quality. A plant that is naturally beginning to senesce (cutout) is much easier to deal with than one that is “green as a gourd”. Patience is often a virtue when dealing with cotton in the fall. Second, good spray coverage is essential for good activity of harvest aides. If the spray does not contact the leaf or boll, then nothing happens. Defoliants and boll openers are not translocated like some herbicides. A minimum of 10 gallons of solution per acre by ground equipment and 5 gallons per acre by air are needed to optimize the activity of harvest aides. If you are paying $15.00 per acre for a treatment then use enough water to get your money’s worth. Third, all harvest aids, with the possible exception of paraquat, work better in warmer temperatures (80 to 90 degrees F). Applying a harvest aid in 50 degree F weather will result in much slower action than the same material applied in 80 degree F weather.

Remember, there are three primary actions harvest aides can perform for you—defoliation, boll opening, and regrowth suppression. Obtaining these three functions economically is the challenge. Some folks may need to deal with weeds at harvest, but we can talk about that in the next Picksack.

*2003 Cotton Calendar. D. Monks

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<tr>
<td>August 7</td>
<td>Coffee and Geneva Co. Cotton Tour</td>
<td>Richard Petcher, Mary Baltikauski</td>
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<td>August 8</td>
<td>East Alabama Cotton Tour</td>
<td>Jeff Clary</td>
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<td>August 12</td>
<td>Shelby/Talladega Cotton Meeting</td>
<td>R. Colquitt, H. Dorough</td>
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If you are interested in weekly updates for the state’s cotton crop, the state agricultural statistics reporting service has a website update at: www.nass.usda.gov/weather/cpcurr/al-crop-weather

Our website also has other cotton information including DD60 accumulation at: www.acesag.auburn.edu/dept/cotton

*Reference Number: PSK-8-03, D. Monks and C. Burmester, editors